REMARKS

This Response is submitted in reply to the non-final Office Action mailed on February 3, 2010. A petition for a two-month extension of time ($490.00) is submitted herewith. The Director is authorized to charge the amount of $490.00 for the cost of the two-month extension of time, and any additional fees which may be required, or to credit any overpayment to Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the Attorney Docket No. 3712036-00915 on the account statement.

Claims 1, 3 and 5-24 are pending in this application. Claims 2 and 4 were previously canceled without prejudice or disclaimer. In the Office Action, Claims 6-16 are rejected under 35 U.S.C. §112. Claims 1, 3 and 5-24 are rejected under 35 U.S.C. §103. For at least the reasons set forth below, Applicants respectfully submit that the rejections should be withdrawn.

In the Office Action, the Patent Office asserts that the "means for closing off" language in Claim 6 is considered to be read upon by the "screw" cap disclosed on page 11 of the Specification. However, Applicants respectfully note that the "means for" limitation in Claim 6 is not limited to a screw cap. For example, the Specification recites that the means of closing may be either a cap or a sealed membrane. See, Specification, page 1, paragraph 18.

In the Office Action, Claims 6-16 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite. The Patent Office asserts that the phrase "substantially incompressible" is recited in Claim 6 and is indefinite. See, Office Action, page 3, lines 16-18. In response, Applicants respectfully note that the phrase "substantially incompressible" was removed from Claim 6 by amendment in a response dated March 20, 2009. In fact, in the Advisory Action dated September, 10, 2009, the Patent Office specifically noted this fact and withdrew its rejection under 35 U.S.C. U.S.C. §112, second paragraph. As such, Applicants respectfully submit that Claims 6-16 are not indefinite.

Accordingly, Applicants respectfully request that the rejection of Claims 6-16 under 35 U.S.C. §112, second paragraph, be withdrawn.

In the Office Action, Claims 1, 3, 5-11, 13-19 and 21-24 are rejected under 35 U.S.C. §103(a) as being unpatentable over Japanese Patent Publication No. 2001-122237 to Hideaki et al. ("*Hideaki*") in view of U.S. Patent No. 5,614,148 to Beck et al. ("*Beck*") with evidentiary support from U.S. Patent Publication No. 2003/0031814 A1 to Hutchinson et al. ("*Hutchinson*").

For at least the reasons set forth below, Applicants respectfully submit that, even if combinable, the cited references are deficient with respect to the present claims.

Independent Claims 1 and 6 recite, in part, a container comprising a body formed by walls and a bottom, the body having as its greatest diameter a dimension d_1 and a neck with an internal diameter d_2, said container being made from a semi-crystalline PET, the body of said container comprising at its bottom at least three feet spaced from each other and being integral with said body, wherein the ratio weight of the walls to the weight of the bottom is between 3 and 4 and the ratio volume, in ml, of the body of the container per gram of PET of the body is between 80 and 120, and wherein: the walls of the body have a thickness of less than 100 μm; the part of the bottom between the feet has a thickness between 100 and 200 μm; and each foot has a thickness between 50 and 150 μm. In contrast, Applicants respectfully submit that the cited references are deficient with respect to the present claims.

The claimed containers are intended to reduce the weight of the plastic container used to hold a given volume of a beverage. Conventional solutions to reducing the amount of plastic material used to hold a beverage suggest merely decreasing the weight of the bottom part. However, prior art solutions such as petaloid bottoms are still too thick and use too much plastic material for the volume of product filled in the container. The claimed containers are made from a semi-crystalline PET, and the body of the container comprises at its bottom at least three feet spaced from each other and being integral with said body. The ratio weight of the walls to the weight of the bottom is between 3 and 4, and the ratio volume, in ml, of the body of the container per gram of PET of the body is between 80 and 120. The part of the bottom between the feet has a thickness between 100 and 200 μm, and each foot has a thickness between 50 and 150 μm.

According to a feature of the claimed containers, the ratio weight of the walls to the weight of the bottom is between 3 and 4. There is no product on the market, and also in the cited documents, that discloses this ratio according to the present claims. In fact, none of the cited documents disclose or even suggest that the weight ratio of the walls to the bottom has any effect on the amount of plastic material required for a given beverage volume. Furthermore, when forming the container by blow-molding a plastic material such as PET, it would not have been evident to reach the above mentioned weight ratio while simultaneously maintaining a good structural integrity of the container.

For example, *Hideaki*, *Beck* and *Hutchinson* alone or in combination fail to disclose or suggest a container wherein the ratio weight of the walls to the weight of the bottom is between 3 and 4 as required, in part, by independent Claims 1 and 6.

Hideaki discloses an ultrathin-walled bottle having barrel walls with thicknesses between 20 and 50 μm. See, *Hideaki*, paragraph 10. *Hideaki* does not specifically disclose a weight ratio of the weight of the wall section compared to the weight of the bottom section. Moreover, *Hideaki* fails to disclose or suggest that the ratio of the weight of the walls to the weight of the bottom of the container has any effect on the amount of plastic material required per volume of beverage stored therein. As such, *Hideaki* fails to teach the advantages and benefits of having a container with the weight ratio of the weight of the walls to the weight of the bottom between 3 and 4 in accordance with the present claims.

Beck teaches a blow-molded plastic container having a petaloid bottom. See, *Beck*, Abstract, lines 1-5; column 1, lines 63-67; Fig. 5. *Beck* is entirely directed to reducing the weight of its petaloid bottom by placing a reinforcing ring in the feet while reducing the thickness of the area between the feet. See, *Beck*, column 7, lines 46-53. Like *Hideaki*, *Beck* does not specifically disclose a weight ratio of its walls compared to its bottom and fails to even suggest that such a ratio has any effect on the total amount of plastic material required per volume of beverage stored therein. Instead, *Beck* is concerned only with the distribution of material in and resulting weight of its petaloid base and fails to even mention the weight of its sidewalls. See, *Beck*, column 3, lines 15-15; column 7, lines 1-59; Figs. 3-5. Therefore, *Beck* fails to teach or suggest optimizing the weight ratio of the walls to the bottom of the container.

Hutchinson also fails to disclose a weight ratio of its walls compared to its bottom. Moreover, *Hutchinson* fails to teach that such a ratio has any effect on the total amount of plastic material required per volume of beverage stored therein. Instead, *Hutchinson* is entirely directed to a plastic bottle having a crystalline neck and a semi-crystalline or amorphous body to enhance the physical properties of the bottle. See, *Hutchinson*, Title; Abstract; page 1, paragraphs 7-9. Thus, *Hutchinson* fails to teach or suggest optimizing the ratio of the weight of the walls to the weight of the bottom of its container to achieve the claimed weight ratio. As such, even if combinable, *Hideaki*, *Beck* and *Hutchinson* fail to disclose or suggest a container wherein the ratio weight of the walls to the weight of the bottom is between 3 and 4

Moreover, *Hideaki*, *Beck* and *Hutchinson* alone or in combination fail to disclose or suggest a container wherein the ratio volume, in ml, of the body of the container per gram of PET of the body is between 80 and 120 as required, in part, by independent Claims 1 and 6.

Hideaki is entirely directed to a bottle having ultra-thin ***side*** walls in the barrel part so that the walls can be pushed into the shoulder part at the time of disposal and thereby allow for a larger amount of bottles to be transported and stockpiled for recycling. See, *Hideaki*, page 1, paragraphs 2-3; page 2, paragraphs 5 and 7. *Hideaki* does not specifically disclose the total weight or volume of its bottle. *Hideaki* further fails to disclose the height or density of its side walls or bottom walls. As such, one of ordinary skill in the art could not determine the overall weight of *Hideaki*'s bottle. Furthermore, although *Hideaki* teaches the use of ultra-thin ***side*** walls for compression into the shoulder and eventual recycling, *Hideaki* expressly discloses that the overall container cannot be made too thin or light because the walls of the bottom part must be thicker to support the load of the content in the bottle. See, *Hideaki*, pages 5-6, paragraph 10. As such, one of ordinary skill in the art would understand that *Hideaki* fails to teach optimizing the total amount of plastic used per volume of the container and instead is concerned only with decreasing the thickness of its side walls for disposal purposes.

Beck teaches a blow-molded plastic container having a petaloid bottom. See, *Beck*, Abstract, lines 1-5; column 1, lines 63-67; Fig. 5. *Beck* is entirely directed to reducing the weight of its petaloid bottom by placing a reinforcing ring in the feet while reducing the thickness of the area between the feet. See, *Beck*, column 7, lines 46-53. However, *Beck* specifically acknowledges that simply decreasing the weight of the bottom portion of the bottle without also redesigning the bottle is an inadequate method for achieving a reduced-weight bottle with sufficient structural integrity. See, *Beck*, column 7, lines 24-45. Therefore, *Beck* teaches that reducing the weight of its bottle is not a matter of mere routine experimentation and instead teaches that a unique design must be used to achieve a reduced weight while adequately supporting the contents of the bottle. As such, one of ordinary skill in the art would understand that the claimed ratio of the volume of the body per gram of PET used would not have been obvious at the time of the invention.

In fact, one of ordinary skill in the art would understand that a container as disclosed by *Beck* or including a bottom portion as disclosed by *Beck* cannot have both weight and volume to weight ratios within the claimed ranges. For example, *Beck* teaches that its bottle is designed for

a volume of 2 liters (2000 ml). *Beck* further teaches that its petaloid base has a weight of 13.5 g. If the weight ratio of the walls to the bottom is in the claimed range, the walls would weigh between 40.5 g (13.5 g x 3) and 54.0 g (13.5 g x 4). The total weight of the bottle of *Beck* would then be 54.0-67.5 g. Thus, the volume to weight ratio of the bottle of *Beck* would be 29.6-37.0 ml per g of plastic, which is much lower than the claimed range. As such, *Beck* fails to teach or suggest a container which simultaneously achieves the weight and volume to weight ratios of the present claims. For the same reasons, if the bottle of *Hideaki* were modified to include the base of *Beck*, the resulting container cannot have weight and volume to weight ratios within the claimed range, since the weight of the base of *Beck* per volume of the modified container would remain the same (and therefore the weight of the walls compared to the overall volume of the modified container would remain the same).

Hutchinson also fails to disclose a volume ratio of its body compared to the amount of plastic used to form its bottle. Instead, *Hutchinson* is entirely directed to a plastic bottle having a crystalline neck and a semi-crystalline or amorphous body to enhance the physical properties of the bottle. See, *Hutchinson*, Title; Abstract; page 1, paragraphs 7-9. Therefore, *Hutchinson* fails to suggest optimizing the design of the bottle to achieve the claimed volume to weight ratio, and, even if combinable, *Hideaki*, *Beck* and *Hutchinson* fail to disclose or suggest a container wherein the ratio volume, in ml, of the body of the container per gram of PET of the body is between 80 and 120.

Furthermore, *Hideaki*, *Beck* and *Hutchinson* alone or in combination fail to disclose or suggest a container wherein the part of the bottom between the feet has a thickness between 100 and 200 μm, and each foot has a thickness between 50 and 150 μm as required, in part, by independent Claims 1 and 6.

Hideaki teaches a bottle having ultra-thin ***side*** walls in the barrel part so that the walls can be pushed into the shoulder part at the time of disposal and thereby allow for a larger amount of bottles to be transported and stockpiled for recycling. See, *Hideaki*, page 1, paragraphs 2-3; page 2, paragraphs 5 and 7. *Hideaki* does not specifically disclose the thickness of any portions of its bottom part and instead merely discloses that "[s]ince the bottom part 4 will have the load of the content applied to it, its walls should preferably be thicker than the walls of the barrel part 3." See, *Hideaki*, pages 5-6, paragraph 11. However, nowhere does *Hideaki* teach or suggest how thick the walls of the bottom part should be. In fact, *Hideaki* is entirely unconcerned with the

specific design of its bottom part and instead is directed to decreasing the thickness of its side walls for disposal purposes. As such, *Hideaki* fails to teach the advantages and benefits of having a container with the claimed thicknesses in the bottom portion.

Beck discloses that the thickness "A" between its feet is between 0.060 and 0.087 inches (1,524 to 2,210 μm). See, *Beck*, column 7, lines 33-34. *Beck* further discloses that more material is provided in its feet such that the thickness of its feet is between 0.008 and 0.14 inches (203 to 3,556 μm). See, *Beck*, column 7, lines 29-32. These values are both substantially greater than the claimed thickness ranges. Furthermore, *Beck* teaches that merely reducing the weight of a bottom portion of the bottle is insufficient to obtain a structurally sound bottle without the redistribution of the material and the use of its reinforcing ring. See, *Beck*, column 7, lines 21-23. Thus, *Beck* expressly teaches that reducing the thicknesses of distinct portions of the bottom of the bottle while maintaining sufficient structural integrity would not have been a matter of routine experimentation. As such, one skilled in the art would have no reason to merely reduce the thicknesses of the feet of *Beck* to arrive at the claimed thickness values.

Hutchinson fails to disclose any thicknesses of a finished container. Instead, the only thicknesses disclosed in *Hutchinson* are for the preform (pre-blow molding) or barrier coating (covering the body of the container). See, *Hutchinson*, page 5, paragraphs 56 and 61. Specifically, *Hutchinson* discloses that the wall of the bottom portion of the preform may have a thickness of 3.2 millimeters; the wall of the neck, a cross-sectional dimension of about 3 millimeters; and the barrier material applied to a thickness of about 0.3 millimeters. See, *Hutchinson*, page 5, paragraph 56. However, *Hutchinson* is entirely unconcerned with the thicknesses of the bottom portion of a finished container and fails to teach or suggest optimizing the design of the bottle to achieve the claimed thicknesses in the finished bottom portion.

As such, Applicants respectfully submit that a container wherein the ratio weight of the walls to the weight of the bottom is between 3 and 4 and the ratio volume, in ml, of the body of the container per gram of PET of the body is between 80 and 120, and wherein: the walls of the body have a thickness of less than 100 μm; the part of the bottom between the feet has a thickness between 100 and 200 μm; and each foot has a thickness between 50 and 150 μm would not have been obvious to one of ordinary skill in the art based on the disclosures of the cited references.

Accordingly, Applicants respectfully request that the rejection of Claims 1, 3-4, 7-8 and 11-17 under 35 U.S.C. §103(a) to *Hideaki*, *Beck* and *Hutchinson* be withdrawn.

In the Office Action, Claims 12 and 20 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Hideaki* in view of *Beck* with evidentiary support from *Hutchinson* and further in view of U.S. Patent Publication No. 2002/0185212 to Schaupp et al. ("*Schaupp*"). Applicants respectfully submit that the cited references are deficient with respect to Claims 12 and 20.

As discussed previously, *Hideaki*, *Beck* and *Hutchinson* fail to disclose or suggest a container wherein: (1) the ratio weight of the walls to the weight of the bottom is between 3 and 4; (2) the ratio volume, in ml, of the body of the container per gram of PET of the body is between 80 and 120; (3) the part of the bottom between the feet has a thickness between 100 and 200 μm; and (4) each foot has a thickness between 50 and 150 μm as required, in part, by independent Claims 1 and 6 from which Claims 12 and 20 depend. The Patent Office relies on *Schaupp* merely as support for a pad printing on the outside of the container. See, Office Action, page 9, lines 1-7. Thus, Applicants respectfully submit that, even if properly combinable, *Schaupp* fails to remedy the deficiencies of *Hideaki*, *Beck* and *Hutchinson* with respect to Claims 12 and 20.

Accordingly, Applicants respectfully request that the rejection of Claims 12 and 20 under 35 U.S.C. §103(a) to *Hideaki*, *Beck*, *Hutchinson* and *Schaupp* be withdrawn.

For the foregoing reasons, Applicants respectfully request reconsideration of the above-identified patent application and earnestly solicit an early allowance of same. In the event there remains any impediment to allowance of the claims that could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate such an interview with the undersigned.

Respectfully submitted,

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